THE OFFICE OF REGULATORY STAFF

DIRECT TESTIMONY AND EXHIBITS

OF

MICHAEL L. SEAMAN-HUYNH

MARCH 4, 2013

DOCKET NO. 2013-2-E

Annual Review of Base Rates for Fuel Costs of South Carolina Electric & Gas Company

DIRECT TESTIMONY AND EXHIBITS OF

MICHAEL L. SEAMAN-HUYNH

FOR

THE SOUTH CAROLINA OFFICE OF REGULATORY STAFF

DOCKET NO. 2013-2-E

IN RE: ANNUAL REVIEW OF BASE RATES FOR FUEL COSTS

OF SOUTH CAROLINA ELECTRIC & GAS COMPANY

Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS AND OCCUPATION.

A. My name is Michael Seaman-Huynh. My business address is 1401 Main Street, Suite 900, Columbia, South Carolina 29201. I am employed by the State of South Carolina as a Senior Electric Utilities Specialist in the Electric Department for the Office of Regulatory Staff ("ORS").

Q. PLEASE STATE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.

A. I received my Bachelor's Degree from the University of South Carolina in 1997. Prior to my employment with ORS, I was employed as an energy analyst with a private consulting firm. I joined ORS in 2006 as an Electric Utilities Specialist and was promoted to Senior Electric Utilities Specialist in 2010.

Q. HAVE YOU TESTIFIED PREVIOUSLY BEFORE THE PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA?

A. Yes. I have previously testified on numerous occasions before the Public Service Commission of South Carolina ("Commission") in conjunction with fuel clause, general rate case, and Utility Facility Siting and Environmental Protection Act proceedings.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to set forth ORS Electric Department's findings and recommendations resulting from our examination and review of South Carolina Electric & Gas Company's ("SCE&G" or "Company") fuel expenses and power plant operations used in the generation of electricity to meet the Company's retail customer requirements. The review period includes the actual data for January 2012 through December 2012, estimated data for January 2013 through April 2013, and forecasted data for May 2013 through April 2014.

Q. WHAT AREAS WERE ENCOMPASSED IN YOUR REVIEW OF THE COMPANY'S FUEL EXPENSES AND PLANT OPERATIONS?

A. ORS examined various fuel and performance related documents as part of its review. The information reviewed addressed various electric generation and power plant outage and maintenance activities. In preparation for this proceeding, ORS analyzed the Company's monthly fuel reports including power plant performance data, unit outages and generation statistics. ORS evaluated contracts for nuclear fuel, coal, natural gas, fuel oil, transportation, ammonia, lime, and limestone. ORS also evaluated the Company's policies and procedures for fuel

procurement. All information was reviewed with reference to the Company's existing Adjustment for Fuel and Variable Environmental Costs tariff and the Fuel Clause statute.

Q. WHAT ADDITIONAL STEPS WERE TAKEN IN ORS'S REVIEW OF THE COMPANY'S PROPOSAL IN THIS PROCEEDING?

A. Numerous meetings were held with SCE&G personnel representing a variety of areas of expertise to discuss and review the Company's coal, natural gas, fuel oil, and nuclear fuel procurement; fuel transportation; environmental costs and compliance procedures; nuclear, fossil and hydro generation plant performances; plant dispatch; forecasting; and general Company policies and procedures. These meetings occurred at ORS offices as well as SCE&G headquarters in Cayce, S.C. In addition, ORS keeps abreast of the nuclear, coal, natural gas, and transportation industries through industry and governmental publications. During the review period, ORS attended the Nuclear Regulatory Commission ("NRC") annual inspection meeting for V.C. Summer Nuclear Station.

Q. DID ORS EXAMINE THE COMPANY'S PLANT OPERATIONS FOR THE REVIEW PERIOD?

A. Yes. ORS reviewed the performance of the Company's generation facilities to determine if the Company made reasonable efforts to minimize fuel costs. ORS also reviewed the availability and capacity factors of the Company's power plants by unit. Exhibit MSH-1 shows - in percentages - the monthly availability factors of the Company's major generation units. The corresponding

capacity factors in Exhibit MSH-2 indicate the monthly utilization of each unit in producing power.

Q. PLEASE EXPLAIN THE SIGNIFICANCE OF PLANT AVAILABILITY AND HOW IT IS USED IN ORS'S EVALUATION OF THE COMPANY'S PLANT PERFORMANCE.

A. Exhibits MSH-3 and MSH-4 show the summary of outages for the Company's major coal, natural gas, and nuclear units for the review period. With reference to Exhibit MSH-1, months where generation units show zero availability, as well as those months showing less than 100% availability, led ORS to examine the reasons for such occurrences. Exhibits MSH-1 through MSH-4 were used in the evaluation of the Company's plant operations. As an example, Exhibit MSH-1 shows that McMeekin Unit #2 had 0.0% availability for the months of February through May 2012. Exhibit MSH-2 shows that the capacity during that same time period was also 0.0%. Exhibit MSH-3, page 1 of 2, indicates the reason for this as being the scheduled outage between January 27, 2012 and June 23, 2012; therefore, the unit was not available to generate electricity during this time frame due to these planned activities being performed.

Q. PLEASE EXPLAIN HOW THE OUTAGES ARE REPRESENTED ON EXHIBITS MSH-3 AND MSH-4.

A. Exhibit MSH-3 provides explanations for major coal and natural gas unit outages lasting 100 hours or greater. While not all plant outages were included in this Exhibit, all outages were reviewed and found to be reasonable by ORS.

Exhibit MSH-4 provides an explanation for the single outage at the V.C. Summer Nuclear Station during the review period.

Q. PLEASE ADDRESS THE OUTAGE AT THE V.C. SUMMER NUCLEAR STATION.

A. Exhibit MSH-4 shows one scheduled refueling outage during the review period. ORS reviewed the outage as well as associated NRC documents, and determined that the Company responded appropriately during the outage. The V.C. Summer Nuclear Station operated efficiently with an actual availability factor of 84.9% and an actual capacity factor of 85.8% during the review period.

Q. PLEASE ELABORATE ON OTHER AREAS OF THE COMPANY'S PLANT OPERATIONS THAT WERE REVIEWED BY ORS.

A. Exhibit MSH-5 provides a history of the availability of the Company's coal, natural gas combined-cycle, and nuclear generation plants for the period of 2007 through 2012. This Exhibit includes the North American Electric Reliability Corporation ("NERC") national five-year (2007-2011) average for availability for each type of generation plant. During the review period, SCE&G's coal, combined-cycle, and nuclear units performed below the NERC five-year average. This resulted primarily from extended outages at several of the Company's generation units. ORS has reviewed each of these outages and determined that the Company responded appropriately.

Exhibit MSH-6 provides the average forced outage rates for the Company's coal, natural gas combined-cycle, and nuclear generation plants for the same time period. During this period, the average forced outage rate for the

Company's coal plants was higher than the NERC five-year average, while the average forced outage rates for the combined-cycle and nuclear units were below the NERC five-year average.

Q. WHAT WERE THE RESULTS OF YOUR ANALYSIS OF THE COMPANY'S POWER PLANT OPERATIONS FOR THE PERIOD UNDER REVIEW?

A. ORS's review of the Company's operation of its generation facilities during the review period revealed that the Company made reasonable efforts to maximize unit availability and minimize fuel costs.

Q. DID ORS REVIEW THE COMPANY'S GENERATION MIX DURING THE REVIEW PERIOD?

A. Yes. Exhibit MSH-7 shows the megawatt-hour ("MWh") generation mix for the review period by percentage and generation type. As shown in this Exhibit, the baseload coal and nuclear plants contributed approximately 67% of the Company's generation throughout the review period. The combined-cycle natural gas-fired plants contributed just over 27% of the generation. The remainder of the generation was met through a mix of combustion turbine, hydroelectric, and purchased power.

Q. DID ORS EXAMINE THE COMPANY'S FUEL COSTS ON A PLANT-BY-PLANT BASIS FOR THE REVIEW PERIOD?

A. Yes. Exhibit MSH-8 shows the average fuel costs for the major generation plants on the Company's system for the review period and the MWhs produced by those respective plants. V.C. Summer generation statistics

represents SCE&G's 2/3 ownership of the plant. The chart shows the lowest average fuel cost of 0.95 cents/kilowatt-hour ("kWh") at the V.C. Summer Nuclear Station and the highest average fuel cost of 4.83 cents/kWh at the Canadys coal-fired plant. The Company utilizes economic dispatch which generally requires that the lower cost units are dispatched first.

Q. HAS ORS REVIEWED THE ACCURACY OF THE COMPANY'S FORECAST?

A. Yes. As shown in Exhibit MSH-9, the Company's actual MWh sales versus estimated sales were 1.67% lower than expected during the review period. In addition, Exhibit MSH-10 shows the monthly variance between the actual and projected fuel costs for the review period. This Exhibit shows the cumulative average actual fuel costs for the period was 7.81% higher than the projected fuel costs.

Q. WHAT OTHER INFORMATION HAS ORS REVIEWED AS PART OF ITS EVALUATION IN THIS PROCEEDING?

A. Exhibit MSH-11 shows ending period balances of fuel costs beginning in October 1992. The Company has experienced both under-recovery and over-recovery balances throughout the approximate twenty-year period. As of December 2012, the Company had a cumulative under-recovery of $82,500,782.

Q. WHAT OTHER SOURCES OF INFORMATION DOES ORS USE IN DETERMINING THE REASONABLENESS OF A UTILITY'S REQUEST FOR A FUEL COST COMPONENT?

A. ORS routinely 1) reviews private and public industry publications including those available on the Energy Information Administration's website; 2) conducts meetings with Company personnel; 3) attends industry conferences; and 4) reviews fuel information as filed monthly by electric generation utilities with the Federal Government.

Q. WHAT CHANGE HAS THE COMPANY REQUESTED TO ITS CURRENTLY APPROVED FACTORS?

A. The Commission issued Order No. 2012-951 on December 20, 2012 approving a base fuel component of 3.278 cents per kWh for the period of January 1, 2013 through the last billing cycle for April 2014 based on the Company's forecast. In keeping with this Order, the Company has not requested any adjustment to its currently approved base fuel component. The Company has requested to reduce its currently approved variable environmental cost component based on the Company's forecast.

Q. WHAT IMPACT WILL THE PROPOSED DECREASE HAVE ON THE TYPICAL AVERAGE MONTHLY BILL OF A RESIDENTIAL CUSTOMER?

A. The proposed fuel factors would decrease the average monthly bill for a residential customer on Rate 8 using 1,000 kWh from $137.65 to $137.51. This equates to a decrease of $0.14 a month.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes, it does.

Office of Regulatory Staff

Power Plant Performance Data - Availability Factors (Percentage)

South Carolina Electric & Gas Company

Docket No. 2013-2-E

			Historical Data			*Review Period (Actual) Data*											
Plant	**Unit**	**MW Rating**	**2010**	**2011**	**2012**	**Jan 2012**	**Feb 2012**	**Mar 2012**	**Apr 2012**	**May 2012**	**June 2012**	**July 2012**	**Aug 2012**	**Sep 2012**	**Oct 2012**	**Nov 2012**	**Dec 2012**	**Average Review Pd.**
Canadys	1	90	75.6	73.1	71.1	0.0	0.0	35.0	66.7	100.0	93.3	100.0	93.5	100.0	72.0	92.9	100.0	**71.1**
Canadys	2	115	93.2	82.6	88.8	95.9	82.2	85.7	97.7	84.6	100.0	76.9	98.9	54.7	89.2	100.0	100.0	**88.8**
Canadys	3	180	63.0	72.6	89.1	86.6	88.9	84.5	85.0	100.0	93.3	93.6	92.9	100.0	60.8	83.4	100.0	**89.1**
Cope		415	94.1	87.4	73.8	100.0	52.1	99.0	100.0	82.7	100.0	95.4	98.8	24.8	0.0	32.6	100.0	**73.8**
McMeekin	1	125	94.7	92.9	39.9	100.0	99.6	11.9	0.0	0.0	0.0	0.0	0.0	0.0	67.3	100.0	100.0	**39.9**
McMeekin	2	125	80.6	91.5	53.6	80.2	0.0	0.0	0.0	0.0	44.8	84.1	100.0	36.5	100.0	100.0	97.4	**53.6**
Urquhart	3	95	92.7	86.1	83.4	100.0	100.0	100.0	76.2	93.8	69.8	97.3	100.0	100.0	15.6	48.1	100.0	**83.4**
Wateree	1	342	90.0	92.5	76.2	93.1	0.0	0.0	64.4	99.9	91.3	100.0	100.0	84.8	100.0	86.5	94.8	**76.2**
Wateree	2	342	90.1	93.7	94.1	100.0	100.0	100.0	100.0	100.0	96.6	98.0	100.0	82.0	84.0	72.6	95.6	**94.1**
Williams		605	74.7	61.3	83.4	0.0	74.0	100.0	99.5	81.3	100.0	100.0	100.0	76.7	78.9	90.6	100.0	**83.4**
Coal Totals		**2,434**	**84.9**	**83.4**	**75.3**	**75.6**	**59.7**	**61.6**	**68.9**	**74.2**	**78.9**	**84.5**	**88.4**	**65.9**	**66.8**	**80.7**	**98.8**	**75.3**
Jasper	1	156	76.4	96.7	79.5	100.0	100.0	8.9	8.7	100.0	100.0	100.0	58.7	83.1	100.0	99.8	94.8	**79.5**
Jasper	2	164	83.4	96.5	81.1	100.0	100.0	9.7	8.3	100.0	99.0	100.0	61.0	100.0	100.0	100.0	94.8	**81.1**
Jasper	3	147	84.5	95.2	81.3	98.6	99.1	9.7	11.5	100.0	100.0	100.0	62.3	100.0	99.3	99.9	94.8	**81.3**
Jasper	4	385	84.6	99.1	81.1	99.9	100.0	9.7	10.9	100.0	100.0	100.0	61.7	95.8	100.0	100.0	94.8	**81.1**
Urquhart	5	162	85.2	86.4	93.4	98.8	86.0	99.9	90.3	80.2	98.1	99.3	99.9	96.9	97.7	74.2	100.0	**93.4**
Urquhart	1	64	88.5	86.6	95.0	98.9	99.0	100.0	89.8	80.8	99.1	100.0	100.0	99.0	100.0	74.1	100.0	**95.0**
Urquhart	6	168	79.3	85.2	94.0	100.0	100.0	79.3	98.2	90.6	95.0	93.7	94.8	100.0	97.3	81.4	97.8	**94.0**
Urquhart	2	64	81.3	96.8	96.1	100.0	98.1	88.6	97.9	100.0	99.5	93.4	96.4	100.0	98.8	81.2	99.9	**96.1**
CC Totals [1]		**1,310**	**82.9**	**92.8**	**87.7**	**99.5**	**97.8**	**50.7**	**52.0**	**94.0**	**98.8**	**98.3**	**79.4**	**96.8**	**99.1**	**88.8**	**97.1**	**87.7**
V.C. Summer	1 [2]	966	99.1	87.5	84.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	38.8	0.0	79.7	**84.9**

[1] *CC designates Combined-Cycle units*

[2] *V.C. Summer Unit 1 Ownership: South Carolina Electric & Gas Company (66.67%) and South Carolina Public Service Authority (33.33%)*

EXHIBIT MSH-1

Office of Regulatory Staff

Power Plant Performance Data - Capacity Factors (Percentage)

South Carolina Electric & Gas Company

Docket No. 2013-2-E

			Historical Data				*Review Period (Actual) Data*												
Plant	**Unit**	**MW Rating**	**Life[1] Time**	**2010**	**2011**	**2012**	**Jan 2012**	**Feb 2012**	**Mar 2012**	**Apr 2012**	**May 2012**	**June 2012**	**July 2012**	**Aug 2012**	**Sep 2012**	**Oct 2012**	**Nov 2012**	**Dec 2012**	**Average Review Pd.**
Canadys	1	90	n/a	39.9	46.6	45.8	0.0	0.0	30.8	33.5	82.1	48.8	86.9	77.7	87.9	46.3	48.7	6.5	**45.8**
Canadys	2	115	n/a	40.6	46.3	44.8	65.2	26.6	57.7	66.7	12.4	29.8	52.2	62.2	29.9	56.9	64.4	13.0	**44.8**
Canadys	3	180	n/a	40.3	45.5	52.9	31.9	61.5	73.6	11.9	84.0	34.8	82.0	82.1	90.3	22.0	48.8	11.6	**52.9**
Cope		415	n/a	74.4	67.4	54.4	76.4	37.9	77.5	77.2	42.3	73.5	73.9	76.8	19.0	0.0	25.7	72.8	**54.4**
McMeekin	1	125	n/a	70.9	54.3	20.3	61.8	59.7	8.2	0.0	0.0	0.0	0.0	0.0	0.0	32.9	76.7	4.7	**20.3**
McMeekin	2	125	n/a	60.3	55.6	32.8	39.2	0.0	0.0	0.0	0.0	26.2	65.2	72.1	18.4	83.3	81.0	8.0	**32.8**
Urquhart	3	95	n/a	47.8	49.0	48.8	46.1	71.4	83.4	25.8	55.6	12.5	72.1	77.7	80.9	12.2	35.1	13.1	**48.8**
Wateree	1	342	n/a	68.1	63.5	56.7	71.2	0.0	0.0	43.0	69.3	61.9	74.6	67.8	61.2	77.2	82.1	72.3	**56.7**
Wateree	2	342	n/a	66.8	69.2	66.1	73.5	64.7	68.9	74.4	68.6	65.1	72.0	66.2	59.1	59.5	55.4	65.5	**66.1**
Williams		605	n/a	66.3	51.6	69.8	0.0	56.2	86.7	84.3	63.5	81.8	85.5	84.4	60.4	67.4	82.7	84.8	**69.8**
Coal Totals		**2,434**	**n/a**	**62.3**	**57.8**	**56.2**	**45.8**	**41.2**	**57.4**	**56.9**	**54.4**	**58.3**	**72.4**	**71.5**	**50.6**	**48.4**	**62.2**	**55.7**	**56.2**
Jasper	1	156	n/a	57.2	79.2	66.3	84.0	83.4	2.9	3.0	90.1	86.4	87.7	48.0	69.6	92.3	90.0	58.1	**66.3**
Jasper	2	164	n/a	62.9	77.4	69.4	85.5	86.6	5.3	8.2	83.8	79.8	83.4	49.8	88.1	91.8	92.1	78.5	**69.4**
Jasper	3	147	n/a	64.0	74.2	66.7	81.5	82.1	3.9	4.9	80.1	78.3	81.4	46.9	90.6	95.6	88.0	66.9	**66.7**
Jasper	4	385	n/a	48.9	63.5	54.5	69.1	70.6	3.4	4.7	68.1	67.5	71.1	42.3	63.7	65.4	73.9	53.8	**54.5**
Urquhart	5	162	n/a	43.9	34.5	52.4	40.3	28.5	68.5	71.2	41.5	52.2	76.9	68.9	43.3	79.9	37.2	20.3	**52.4**
Urquhart	1	64	n/a	49.8	38.7	60.6	48.9	35.3	81.5	80.1	48.9	61.1	87.4	77.4	48.8	86.7	46.4	24.4	**60.6**
Urquhart	6	168	n/a	38.8	47.5	55.0	24.1	30.2	55.0	79.4	31.9	52.4	74.7	63.1	78.7	70.1	51.2	49.7	**55.0**
Urquhart	2	64	n/a	44.8	55.2	63.0	30.5	36.9	64.2	89.8	37.8	59.3	85.1	71.1	88.7	73.1	59.4	60.0	**63.0**
CC Totals		**1,310**	**n/a**	**51.3**	**61.1**	**59.6**	**62.1**	**61.7**	**25.1**	**30.6**	**63.7**	**67.9**	**78.4**	**53.5**	**70.4**	**79.1**	**70.2**	**53.1**	**59.6**
V.C. Summer	1	966	83.1	100.3	87.9	85.8	102.2	102.3	102.3	102.0	102.0	101.5	101.1	101.0	101.3	37.3	0.0	76.6	**85.8**

[1] ***The lifetime nuclear unit capacity factor for V.C. Summer is through December 2012***

EXHIBIT MSH-2

Office of Regulatory Staff

Coal & Natural Gas Unit Outages - 100 Hrs or Greater Duration

South Carolina Electric & Gas Company

Docket No. 2013-2-E

Unit	Date Offline	Date Online	Hours	Outage Type	Explanation of Outage
Canadys #1	10/24/2011 [1]	3/7/12	3251.7	Planned	Unit was taken offline for a planned outage.
Canadys #1	3/8/12	3/19/12	260.7	Forced	Unit was forced offline due to repair a mechanical connection in the 480-Volt Switchgear.
Canadys #1	4/13/12	4/21/12	189.4	Maintenance	Unit was taken offline due to high temperatures on the HP/IP turbine.
Canadys #1	10/12/12	10/17/12	118.0	Maintenance	Unit was taken offline due to turbine vibration.
Canadys #2	9/15/12	9/28/12	326.4	Planned	Unit was taken offline for a planned Fall outage.
Canadys #3	3/31/12	4/5/12	125.0	Planned	Unit was taken offline for a planned Spring outage.
Canadys #3	10/22/12		-988903.0	Planned	Unit was taken offline for a planned Fall outage.
Cope	2/12/12	2/26/12	333.7	Forced	Unit was taken offline to make repairs on the Reactor Vessels in the scrubber.
Cope	9/7/12	11/21/12	1784.0	Planned	Unit was taken offline for a planned Fall outage.
McMeekin #1	3/4/12	3/11/12	174.4	Forced	Unit was forced offline to repair a boiler tube leak.
McMeekin #1	3/12/12	10/6/12	4999.0	Maintenance	Unit remained offline to make repairs after suffering an electrical fire.
McMeekin #1	10/13/12	10/18/12	116.0	Forced	Unit was forced offline to replace exciter stator.
McMeekin #2	1/27/12	6/23/12	3411.6	Planned	Unit was taken offline for a planned Spring outage.
McMeekin #2	7/5/12	7/10/12	118.1	Forced	Unit was forced offline to repair boiler tube leaks.
McMeekin #2	9/4/12	9/23/12	457.2	Planned	Unit was taken offline to tie emergency buses back into Unit 1 after repairs from the March 2012 fire were completed.
Wateree #1	1/30/12	3/10/12	948.4	Forced	Unit was taken offline to a superheater header weld leak.
Wateree #1	3/10/12	4/6/12	652.6	Planned	Unit was taken offline for a planned Spring outage.
Wateree #1	11/26/12	12/2/12	131.5	Forced	Unit was forced offline to repair turbine control problems.
Wateree #2	9/9/12	9/14/12	129.5	Maintenance	Unit was taken offline to repair boiler tube leaks.
Wateree #2	10/27/12	11/9/12	316.4	Planned	Unit was taken offline for a planned Fall outage.
Williams	11/1/2011 [2]	2/8/12	2387.2	Maintenance	Unit was taken offline to repair the Main Steam Line.
Williams	5/8/12	5/14/12	139.4	Maintenance	Unit was taken offline to repair a tube leak, repair a FD fan speed changer, and perform an air heater wash.
Williams	9/24/12	10/7/12	320.8	Planned	Unit was taken offline for a planned Fall outage.

[1] ***This outage at Canadys #1 began prior to the review period.***

[2] ***This outage at Williams began prior to the review period.***

Office of Regulatory Staff

Coal & Natural Gas Unit Outages - 100 Hrs or Greater Duration

South Carolina Electric & Gas Company

Docket No. 2013-2-E

Unit	Date Offline	Date Online	Hours	Outage Type	Explanation of Outage
Jasper #1	3/4/12	4/28/12	1328.2	Planned	Unit was taken offline for a planned Spring outage.
Jasper #1	8/17/12	8/28/12	250.1	Maintenance	Unit was taken offline to replace two steam probes and repair the main turbine stop valves.
Jasper #1	9/22/12	9/27/12	110.4	Planned	Unit was taken offline for a planned Fall outage.
Jasper #2	3/4/12	4/28/12	1331.5	Planned	Unit was taken offline for a planned Spring outage.
Jasper #2	8/17/12	8/27/12	233.3	Maintenance	Unit was taken offline to replace two steam probes and repair the main turbine stop valves.
Jasper #3	12/27/2011 [1]	1/1/12	114.4	Maintenance	Unit was taken offline to replace combustor caps.
Jasper #3	3/4/12	4/27/12	1308.4	Planned	Unit was taken offline for a planned Spring outage.
Jasper #3	8/18/12	8/27/12	227.7	Maintenance	Unit was taken offline to replace two steam probes and repair the main turbine stop valves.
Jasper #4	3/4/12	4/27/2012	1311.9	Planned	Unit was taken offline for a planned Spring outage.
Jasper #4	8/18/12	8/27/2012	230.4	Maintenance	Unit was taken offline to replace two steam probes and repair the main turbine stop valves.
Urquhart #1	4/28/12	5/6/12	212.6	Planned	Unit was taken offline for a planned Spring outage.
Urquhart #1	11/9/12	11/17/12	186.9	Planned	Unit was taken offline for a planned Fall outage.
Urquhart #2	11/25/12	12/1/12	136.0	Planned	Unit was taken offline to lube oil system valves and piping.
Urquhart #3	4/9/12	4/16/12	171.5	Planned	Unit was taken offline for a planned Spring outage.
Urquhart #3	5/30/12	6/9/12	252.3	Forced	Unit was forced offline to repair an air heater.
Urquhart #3	10/5/12	11/11/12	893.2	Planned	Unit was taken offline for a planned Fall outage.
Urquhart #3	11/12/12	11/16/12	107.9	Outage Extension	Outage was extended to repair tube leaks.
Urquhart #5	4/28/12	5/6/12	212.6	Planned	Unit was taken offline for a planned Spring outage.
Urquhart #5	11/9/12	11/17/12	186.3	Planned	Unit was taken offline for a planned Fall outage.
Urquhart #6	3/25/12	3/31/12	153.7	Planned	Unit was taken offline for a planned Spring outage.
Urquhart #6	11/25/12	11/30/12	129.6	Planned	Unit was taken offline for a planned Fall outage.

[1] ***This outage at Jasper #3 began prior to the review period.***

Office of Regulatory Staff
Nuclear Unit Outages
South Carolina Electric & Gas Company
Docket No. 2013-2-E

V.C. Summer Nuclear Station				
Date Offline	**Date Online**	**Hours**	**Outage Type**	**Explanation of Outage**
10/13/12	12/7/12	1326.3	Planned	Unit was taken offline for Refueling Cycle 20.

EXHIBIT MSH-4

Office of Regulatory Staff

EXHIBIT MSH-5

Power Plant Availability (Percentage)

South Carolina Electric & Gas Company

Docket No. 2013-2-E

Coal-Fired Plants								
Plant	**Unit**	**MW Rating**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**
Canadys	1	90	57.0	86.1	87.2	75.6	73.1	**71.1**
Canadys	2	115	87.2	66.7	87.4	93.2	82.6	**88.8**
Canadys	3	180	87.3	82.0	79.6	63.0	72.6	**89.1**
Cope		415	92.2	75.9	96.4	94.1	87.4	**73.8**
McMeekin	1	125	94.2	88.0	63.7	94.7	92.9	**39.9**
McMeekin	2	125	66.6	91.2	87.7	80.6	91.5	**53.6**
Urquhart	3	95	94.4	87.5	71.4	92.7	86.1	**83.4**
Wateree	1	342	79.1	94.3	71.4	90.0	92.5	**76.2**
Wateree	2	342	87.4	93.2	91.7	90.1	93.7	**94.1**
Williams		605	79.1	81.4	86.0	74.7	61.3	**83.4**
Total		**2,434**	**82.5**	**84.6**	**82.3**	**84.9**	**83.4**	**75.3**
								(2007-2011)
NERC 5-year average (All Coal Plants)								**86.2**

Combined Cycle Plants								
Plant	**Unit**	**MW Rating**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**
Jasper	1	156	84.3	88.6	94.9	76.4	96.7	**79.5**
Jasper	2	164	84.3	92.2	95.9	83.4	96.5	**81.1**
Jasper	3	147	86.4	92.5	88.9	84.5	95.2	**81.3**
Jasper	4	385	86.1	93.5	96.6	84.6	99.1	**81.1**
Urquhart	5	162	94.4	78.2	92.4	85.2	86.4	**93.4**
Urquhart	1	64	93.2	79.8	92.2	88.5	86.6	**95.0**
Urquhart	6	168	80.7	87.5	92.3	79.3	85.2	**94.0**
Urquhart	2	64	80.5	87.6	91.5	81.3	96.8	**96.1**
Total		**1,310**	**86.2**	**87.5**	**93.1**	**82.9**	**92.8**	**87.7**
								(2007-2011)
NERC 5-year average (CC Plants)								**89.1**

Nuclear Plants								
Plant	**Unit**	**MW Rating**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**
V.C. Summer	**1**	**966**	**99.5**	**84.4**	**81.7**	**99.1**	**87.5**	**84.9**
								(2007-2011)
NERC 5-year average (All Nuclear Plants)								**90.1**

Office of Regulatory Staff

EXHIBIT MSH-6

Power Plant Forced Outages (Percentage)

South Carolina Electric & Gas Company

Docket No. 2013-2-E

Coal-Fired Plants								
Plant	**Unit**	**MW Rating**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**
Canadys	1	90	18.06	3.99	5.99	9.44	6.87	**10.51**
Canadys	2	115	1.71	2.62	6.04	2.27	10.84	**7.98**
Canadys	3	180	1.73	7.22	10.94	3.16	13.84	**6.27**
Cope		415	2.36	2.09	0.05	0.30	1.70	**6.35**
McMeekin	1	125	3.24	1.76	2.90	0.05	1.56	**10.03**
McMeekin	2	125	6.52	1.19	1.27	1.89	3.02	**3.73**
Urquhart	3	95	0.37	1.62	0.00	0.02	13.06	**4.40**
Wateree	1	342	2.07	0.39	0.89	3.62	4.64	**16.63**
Wateree	2	342	7.17	1.00	0.00	5.45	1.19	**0.88**
Williams		605	17.46	1.30	0.34	2.44	1.94	**1.02**
Total		**2,434**	**5.89**	**2.26**	**2.20**	**2.69**	**5.48**	**6.67**
								(2007-2011)
NERC 5-year average (All Coal Plants)								**5.90**

Combined Cycle Plants								
Plant	**Unit**	**MW Rating**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**
Jasper	1	156	4.18	5.08	0.23	0.85	0.17	**0.86**
Jasper	2	164	4.27	0.07	0.01	0.69	0.33	**0.92**
Jasper	3	147	1.54	0.13	0.60	0.14	0.35	**0.88**
Jasper	4	385	1.64	0.16	0.42	0.06	0.21	**1.19**
Urquhart	5	162	0.13	0.03	0.57	2.77	0.49	**1.83**
Urquhart	1	64	1.44	0.01	0.11	0.20	0.45	**0.24**
Urquhart	6	168	0.05	0.37	1.52	2.83	0.06	**0.82**
Urquhart	2	64	0.13	0.54	0.10	0.24	0.00	**0.49**
CC Totals		**1,310**	**1.93**	**0.86**	**0.44**	**0.90**	**0.24**	**0.91**
								(2007-2011)
NERC 5-year average (CC Plants)								**5.05**

Nuclear Plants								
Plant	**Unit**	**MW Rating**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**
V.C. Summer	1	966	0.50	2.60	3.90	0.90	0.70	**0.00**
								(2007-2011)
NERC 5-year average (All Nuclear Plants)								**2.51**

Office of Regulatory Staff
Generation Mix: January - December 2012
South Carolina Electric & Gas Company
Docket No. 2013-2-E

Month	Percentage [1]					
	Coal	Nuclear	Combined Cycle	Combustion Turbine	Hydro	Purchased Power
2012						
January	42.1	23.4	31.2	0.1	2.0	1.3
February	39.4	24.1	31.9	0.3	2.4	1.9
March	56.1	25.1	13.3	0.6	2.8	2.1
April	54.5	24.6	15.0	0.7	3.3	1.9
May	46.1	21.8	28.1	0.2	3.2	0.6
June	46.2	20.4	28.1	0.4	3.6	1.4
July	49.1	17.5	28.0	0.7	3.1	1.7
August	53.3	19.2	20.9	0.7	3.9	2.1
September	41.8	21.0	30.1	0.7	3.8	2.5
October	45.9	9.0	38.8	0.7	2.9	2.8
November	55.4	0.0	35.5	2.2	1.8	5.2
December	51.6	17.9	27.3	0.5	2.1	0.6
AVERAGE	**48.4**	**18.7**	**27.3**	**0.6**	**2.9**	**2.0**

[1] Numbers may not equal 100% due to rounding.

EXHIBIT MSH-7

Office of Regulatory Staff

Generation Statistics for Major Plants: January - December 2012

South Carolina Electric & Gas Company

Docket No. 2013-2-E

Plant	Fuel Type	Average Fuel Cost [1] (Cents/kWh)	Generation (MWh)
V.C. Summer [2]	Nuclear	0.95	4,854,496
Jasper CC	Natural Gas	2.57	4,815,284
Urquhart CC	Natural Gas	3.15	2,294,622
Urquhart	Coal/Natural Gas	4.15	409,033
Williams	Coal	4.32	3,719,747
Cope	Coal	4.32	1,988,813
McMeekin	Coal/Natural Gas	4.69	583,272
Wateree	Coal	4.82	3,697,547
Canadys	Coal/Natural Gas	4.83	1,652,185

[1] ***The average fuel costs for coal-fired plants include oil and/or gas cost for start-up and flame stabilization.***

[2] ***Generation Statistics for V.C. Summer represents SCE&G's 2/3 ownership.***

EXHIBIT MSH-8

Office of Regulatory Staff
SC Retail Comparison of Estimated to Actual Energy Sales
South Carolina Electric & Gas Company
Docket No. 2013-2-E

		2012												
		Jan [1]	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Period Total
[1]	Estimated Sales (MWh)	1,777,597	1,827,800	1,689,200	1,543,700	1,635,800	1,937,700	2,109,600	2,153,800	1,948,400	1,691,900	1,550,100	1,718,400	21,583,997
[2]	Actual Sales (MWh)	1,777,597	1,618,403	1,603,573	1,504,096	1,762,985	1,860,018	2,178,933	2,180,094	1,886,660	1,709,860	1,492,774	1,654,122	21,229,115
[3]	Difference [1]-[2]	0	209,397	85,627	39,604	-127,185	77,682	-69,333	-26,294	61,740	-17,960	57,326	64,278	354,882
[4]	Percent Difference [3]/[2]	0.00%	12.94%	5.34%	2.63%	-7.21%	4.18%	-3.18%	-1.21%	3.27%	-1.05%	3.84%	3.89%	**1.67%**

[1] ***Due to the timing of the Company's 2012 forecast, actual sales were used for the month of January.***

EXHIBIT MSH-9

Office of Regulatory Staff

SC Retail Comparison of Estimated to Actual Fuel Cost

South Carolina Electric & Gas Company

Docket No. 2013-2-E

		2012												
		Jan	**Feb**	**Mar**	**Apr**	**May**	**June**	**July**	**Aug**	**Sept**	**Oct**	**Nov**	**Dec**	**Period Average**
[1]	**Original Projection (¢/kWh)**	3.2731	2.8198	3.3243	3.3950	3.3997	3.4682	3.4726	3.4073	2.9203	3.3304	3.7917	3.4603	3.3386
[2]	**Actual Experience (¢/kWh)**	3.2434	3.1458	3.5045	3.6777	3.4126	3.4462	3.7843	3.4775	3.3145	3.6247	5.0749	3.7489	3.6213
[3]	**Amount in Base (¢/kWh)**	3.5860	3.5860	3.5860	3.5860	3.5410	3.5410	3.5410	3.5410	3.5410	3.5410	3.5410	3.5410	3.5560
[4]	**Variance from Actual [1-2]/[2]**	0.92%	-10.36%	-5.14%	-7.69%	-0.38%	0.64%	-8.24%	-2.02%	-11.89%	-8.12%	-25.29%	-7.70%	**-7.81%**

EXHIBIT MSH-10

EXHIBIT MSH-11

Office of Regulatory Staff

History of Cumulative Recovery Account

South Carolina Electric & Gas Company

Docket No. 2013-2-E

PERIOD ENDING	OVER (UNDER) $
October-92	15,449,670
April-93	16,006,551
October-93	10,069,457
April-94	2,646,301
October-94	(265,302)
April-95	6,622,597
October-95	4,202,766
February-97	4,914,169
February-98	596,797
February-99	(1,303,094)
February-00	(124,599)
February-01	(60,454,498)
February-02	(16,421,821)
February-03	(17,429,464)
February-04	(20,532,126)
January-05	(23,979,198)
January-06	(54,743,186)
January-07	(52,562,505)
January-08	(28,848,155)
December-08	(130,199,721)
December-09	(89,477,296)
December-10	(76,013,131)
December-11	(92,791,882)
December-12	(82,500,782)